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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,785	11/28/2001	Byoung-ho Choi	1293.1281	8358

7590 04/29/2005

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EXAMINER

AGUSTIN, PETER VINCENT

ART UNIT	PAPER NUMBER
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2652

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/994,785

Applicant(s)

CHOI ET AL.

Examiner

Peter Vincent Agustin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-8,11-14 and 33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-8,11-14 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/13/05
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4-8, 11-14 & 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi (US 6,097,695).

In regard to claim 1, Kobayashi discloses an optical recording medium (Figure 5), comprising: a wobbled track on which user data is recorded, wherein a wobble signal (column 5, line 5) recorded on the wobbled track is a single-frequency signal (column 5, lines 8-9) having edge-modulated (column 10, lines 28-31) first header information, wherein the edge-modulated first header information is based on first and second signals having a same frequency but different edge waveforms (column 10, line 28-31; see also Figure 4C).

In regard to claim 4, Kobayashi discloses that the first header information contains addressing information (column 4, lines 39-41).

In regard to claim 5, Kobayashi discloses an apparatus (Figure 1) recording a wobble signal on an optical recording medium (Figure 5), the apparatus comprising: a wobble signal generator (Figure 1, elements 6 & 7) generating a single-frequency wobble signal (WB; see also column 5, lines 5-9) having header information which is edge-modulated (column 10, lines 28-31) based on first and second carrier signals having a same frequency and different edge waveforms (column 10, line 28-31; see also Figure 4C); and a recording unit (Figure 1, element

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5) recording the wobble signal generated by the wobble signal generator on the optical recording medium.

In regard to claim 6, Kobayashi discloses that the wobble signal generator comprises: a clock generator (7B) generating a clock signal (column 5, lines 12-14); a carrier signal generator (7E) generating the first and second carrier signals based on the clock signal (column 5, lines 46-52); and an edge-modulator that receives header information and edge-modulates the header information using the first and second carrier signals output from the carrier signal generator based on the clock signal (column 15, lines 19-26; column 10, lines 28-31).

In regard to claim 7, Kobayashi discloses that the edge-modulator transforms high and low levels of digital data representing the header information into the first and second carrier signals, respectively, to modulate the digital data into an analog signal (see Figures 3A-3F & 4A-4C).

In regard to claim 8, Kobayashi discloses that the header information contains addressing information (column 4, lines 39-41).

Claims 11-14 have limitations that are similar to those of claims 5-8; thus, they are rejected on the same basis (see the Office Action mailed June 14, 2004).

In regard to claim 33, Kobayashi discloses that the second carrier signal is a sine wave (see Figures 3F & 4C).

Allowable Subject Matter

3. Upon further consideration of the Kobayashi reference, the indicated allowability of claims 5-8, 11-14 & 33 in the Office Action mailed November 4, 2004 has been withdrawn for the reasons noted in the Response to Arguments below.

Response to Arguments

4. Applicant's arguments filed February 2, 2005 have been fully considered but they are not persuasive.

a. In regard to the rejection of claims 1 and 4, the Applicant argues on page 5, paragraph 7 that "there is no teaching in Kobayashi that the single frequency wobble signal WB contains first and second signal components having different edge waveforms" (as amended). The Examiner disagrees. Figure 4C of Kobayashi, for example, shows the wobble signal having waveform continuity for channel bits having two zeros in a row or two ones in a row, but having a phase shift for channel bits having transitions from zeros to ones or from ones to zeros. Note how each waveform has different "edges" (interpreted as the edges in between the phase shifts in the horizontal direction) depending on whether the represented bit is a zero or a one, i.e., the single frequency wobble signal WB contains first and second signal components having "different edge waveforms".

b. For the same reasons noted in item 4a above, the indicated allowability of claims 5-8, 11-14 & 33 in the Office Action mailed November 4, 2004 has been withdrawn. Claims 5-8, 11-14 & 33 are now rejected on the same grounds of rejection as indicated in the Office Action mailed June 14, 2004.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Vincent Agustin whose telephone number is 571-272-7567. The examiner can normally be reached on Monday-Friday 9:30-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Peter Vincent Agustin
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BRIAN E. MILLER
PRIMARY EXAMINER